Olympus XZ-1 tips

from Jonathon Donahue

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Here's a grab bag of XZ-1 information... from my posts, and others, on www.Dpreview.com ... and from other places. No charge … but if you want to show your appreciation, check out my website and get a great book!

Setting the camera

Start with Program mode instead of I- Auto, Aperture, Shutter, or Manual.

On the screen menu that you see after pressing the back OK button --

1. Select Auto-ISO. The XZ-1 will try really, really hard not to go over ISO 200 -- and that extra stop, from, say ISO 100 to 200, will give you super low-light pictures, with a camera-set shutter speed fast enough to handhold.

2. Next, going down the menu, select 1 Vivid. Then press the little Menu button on the back. Go to Picture Mode, select Vivid. Press the right arrow key, and set Contrast to +1, Sharpness 0, Saturation +1, Gradation - Normal. Important: do NOT set Gradation to Auto, or some other stuff will stop working.
3. Next, select white balance - Underwater (the fish icon). On the back-button Menu, go to WB, press the OK button to select the fish icon, then press the right-arrow. Leave A (amber) at 0, in the middle... but set G (green) to -1.
Between this and the Vivid setting above, you'll get beautiful pictures, indoor and out, daytime, twilight, and in the dark.

4. Further down, select 'LF + Raw' as your picture type. This will make both a JPG and a RAW image. In most instances, the JPG will be great... but the RAW backup lets you rescue any image where the JPG isn't good.

5. Further down, select Spot metering, instead of ESP or Ctr-Weighted. After selecting Spot, go out of the menu. The camera will now always meter light from the little circle-area in the center of the screen.

6. Next comes Focus Point selection. Press the left-arrow key and make sure the green focus square is in the center of the screen. Leave it there! The XZ-1 will now start behaving normally. The XZ-1 will always try to focus in the green-square area in the dead center of the screen, which is where you naturally point the camera.
(thanks to echelon2004 for helping me get this straight!)

Imagine that you are taking a picture of a sunset. Point the XZ-1 at the sky, to the left of the sun. Press the shutter button lightly -- it will lock focus and exposure with a beep. If you don't like the preview image on the LCD, move the camera up or down, and try another preview. The screen lets you see right away what you will get!

7. Lastly, further down, select AF instead of Macro or Super-Macro. At the camera's startup wide-angle lens setting, everything's sharp from about 2' to infinity -- like for almost every photo you will take. But play around with Super-Macro... fantastic closeups. Just don't forget to put it back on AF!

That's about it. Now after you set the camera, write these settings down on a piece of paper in case something gets unset, and forget all about it -- time to start taking pictures! From here on out, trust your eye and your camera. Think pictures, not camera settings.

Before you go, get two SD cards, and three spare batteries. You will get about 200 -250 pictures per battery charge... so three charged batteries should be all you need, who knows what kind of electricity they have over there. You can carry the XZ-1 in a shirt pocket, with a spare battery in your other shirt pocket.

Night photography -- if you're on the move, forget the tripod or monopod. Learn to balance the camera on a fence, a railing, or braced against a pole. Or, carry a small beanbag in your pants pocket. Use the camera's 12-sec self-timer to take a good sharp picture of anything that isn't moving too much.

Sunset -- point the spot focus to the sky at the left or right of the setting sun; watch the LCD screen til you see the effect you like.

Water reflections -- spot focus off the reflection in the water, not the sky.

Portraits -- here's an exception to Program mode. Go to A Aperture instead. Turn the lens ring til it says 1.8 Put the lens at full telephoto. Stand about 6 feet away from the subject. The background behind the person should be nicely blurred. Now, if you are doing this in bright daylight, there may be too much light for the XZ-1 to handle. So go into the OK button menu, and change ND Off to on. The built-in Neutral Density filter lets you take pictures at wide open lens settings in bright daylight.

Filters -- Don't bother. You can do any special effects later in Photoshop -- almost anything except a true polarizing effect, and the Vivid settings above will help you avoid the need for polarizing color saturation.

Street scenes -- if you have time, think ahead, about what kind of picture may present itself in the minutes ahead. Or what kind of picture you missed may repeat itself... and when... and be there. This is hard to do!

More about settings

I leave my XZ-1 set on Underwater color balance (little fish icon) -- A=0, G=-1, and Vivid color mode. EV at -0.3 or 0.7... digital's like old slide film, you want to underexpose a bit to get rich saturated color.

I keep my Custom mode set to Program, with Monotone color mode (Black-and-white)... sometimes I like to 'see' in B&W.

If using Aperture mode, I like f/5.6 as a place where the lens is very sharp with tremendous depth-of-field. And f/2.5, at full 112mm tele, if you want to blur the background. Really bright day? Use the ND filter to stop overexposure. Shutter speed -- at least 1/125 sec to stop motion. Or, 1/25 sec if you want to get a controlled blur, like

when panning with a moving car or runner.

Confused about all this? Use Program mode, with the ISO at 100. Pictures in the dark, without flash? You can go up to ISO 640, maybe ISO 800, but not more, or you will get blotchy pictures (chroma noise). With the lens at f/2 and ISO 640, you'll be amazed at how you can get almost any nighttime image.

Use spot exposure. Meter for the highlights, or close to them... like the sky to the left or right of the sun at sunset.

Spot exposure note -- opinion from Ken Sills, Dpreview -- "I set my XZ-1 per your set-up guidelines and then went on a vacation trip. The spot exposure caused me lots of problems with landscape photos that had uneven lighting. I was constantly under or over-exposed. I went back to center-weighted and the problem went away."

So -- maybe, for fast-moving action where you don't have time to meter carefully, leave it on Program... Ctr-Weight instead of Spot.

Convenience -- keep the XZ-1 in your left shirt pocket. Keep a charged spare battery and 52mm polarizing filter in your right shirt pocket (you can hold it over the lens to knock out reflections. For bright days, when its hard to see the screen, you also carry a small older Pen VF-1 optical viewfinder that works OK with the lens at the startup 28mm setting. And carry a beanbag in a pants pocket to put the camera on at night, and use the self timer at 12 sec to take the picture, like for a nightscape without too much subject movement.

Post-processing ('developing') -- Corel After Shot Pro is a very good inexpensive program with enough features to keep you busy for a long time.

RAW vs JPG -- the XZ-1 JPGs are very good. But every now and then, like in some weird flourescent light or mixed-light situation, switch it from LF (best JPGs) to LF + RAW. You can learn about RAW in your Olympus software, or in After Shot Pro.

Secret -- focus lock: normally, you hold the shutter button halfway down and wait til you see the little green box and then take the picture. The green box means that the XZ-1 has

locked both focus and exposure on that spot. But what if you want to lock the focus on the spot, but get the exposure somewhere else?

Here's how. Use the back-wheel left arrow to put the focus box in the center of the screen (always best with spot focus). Then - you can put the XZ-1 on SCN > Underwater-Wide and then press the down arrow on the back wheel, and it will lock the focus on whatever's in the center of the screen. With the focus locked, you can move the camera and get an exposure from somewhere else in the scene. The focus lock will hold until you turn off the camera... or until you press the down arrow again to release the focus lock.

Flash -- in Shutter, Aperture, or Manual mode, you can adjust the flash power. Try 1/64 power to add a flick of light, of sparkle, to your portraits or closeups.

Image quality -- for almost all pictures, your XZ-1 takes images as good as any other camera. There are a very few situations where much more expensive DSLRs are better. But not often, and not worth the bother of carting one around. How to 'improve' a picture? The old Life magazine adage -- crop, then crop it again. Your XZ-1's 10 megapixels gives you plenty of room to crop to the most visually strong image possible.

Flash settings

Very first thing: use the Menu button - Camera Menu > Flash settings > Sync > Sync 2. The 'Sync 2' shoots off the flash at the end of an exposure, rather than at the start. So, on a longish exposure, if your kid moves a bit, that movement will be 'overwritten' by the bright sharp end-of-exposure flash image. Leave it on Sync 2 all the time; saves a lot of pictures.

But, since the XZ-1 has a very 'bright' lens, you also have the luxury of choosing a nice fast shutter speed. Put the XZ-1 in S Shutter mode, with the top dial.

On the right-side screen menu (press the back OK button to see it), make sure the ISO is on 'Auto-ISO'. In the dark, the XZ-1 will go from ISO-100 to ISO-200... more light for your picture, allowing an even faster shutter speed.

So -- turn the lens ring until you get to a faster shutter speed, like 1/250. This speed will freeze anyone moving towards you or away from you. 1/500 will freeze side-to-side motion, but might let in too little light in a dark room.

Go the the Flash menu (right-arrow on the back dial), and pick the little lightning bolt -- for auto-intensity Fill In flash (just the lightning bolt, NOT the icon with a bolt and a little eye). The XZ-1 will send out an almost invisible pre-flash, measure the light bouncing back from it, and then fire off the main flash at just the right strength.

This, of course, will cause your child to go blind for a few moments, if not longer. You can put a piece of Kleenex over the flash, to diffuse the light... and try again. If the picture is too dark, move the Flash menu setting from Fill In to Full, or 1/4, or 1/16... or just move closer with the tissue over the flash.

Or, you can tape a little angled piece of cardboard in front of the flash, to bounce the light up at the ceiling, and then down onto the child.

All these flash units put out 'daylight' bluish light. Which is sort of stupid, because we mostly use them indoors, under warmer room light -- lightbulb light -- tungsten light. If you get a little piece of light orange plastic gel from a camera store -- ask for a CTO gel -- and then tape it over the flash, amazing! Suddenly, the light from the flash matches the color tone of the room light -- and those candles on your kid's birthday cake.

Last thought -- take a few minutes to experiment with the Flash menu low-power settings. Outdoors in daylight, try 1/16 and 1/64 to add just a flick of fill flash to your subject. .. very nice (no orange flash filter needed, unless you want a 'late-afternoon' sunlit look).

Optical Infrared Wireless Slave flash

The XZ-1's popup flash can set off other flashes... infrared or 'slave' flashes. I use a cheap Yong-Nuo YN-460N, which is fully adjustable for intensity. It works perfectly indoors --

as long as the camera and flash are NOT in daylight coming in from a window. To photograph a room with daylight coming in from a window, use M Manual mode with the shutter at, say, 1/250. Get a correct exposure from the window (the rest of the room will go black). Then, with the XZ-1 flash on 1/4 power, have it set off the slave flash -- with the slave flash bouncing light off the ceiling, or hidden behind a chair.

On the LCD screen, if the room now looks too bright or too dark, adjust the Aperture... NOT the Shutter speed. Because since the flash fires at faster than 1/2000 of a second, your shutter speed setting is only meaningful for that window-daylight exposure setting. The interior room part of the exposure is controlled by the flash, and changing the aperture is the only way to add or take away light from the room.

Get an inexpensive set of Rosco color gels... http://www.amazon.com/Strobist-Collection-Cinegel-Filter-Strobes/dp/B002SWIOOM ... and a gel holder --http://www.gelholder.com/gelholder/ (works great with the YN460N) and you are, instantly at super-low cost ... starting to light like a pro!

Great resource -- Strobist website, see their 'Lighting 101'. http://strobist.blogspot.com/

Radio-controlled Wireless Slave Flash

-- post on Dpreview by Echelon 2004

Using the XZ-1 with a Cactus V4 radio transmitter to set off Nikon SB-900 speedlights... It's very easy. Use a transmitter of some kind Or use a camera-mounted flash in manual, Or use the built in flash in manual at lowest power to trigger the slaves. Have everything on the camera in manual. Have the flashes in manual. If using Cactus receivers, flashes should not be set as slaves but just as normal camera mounted flashes. Otherwise the slaves need to know that they are to react on the master flash. But manual settings are the key, and never add a light that isn't needed.

Autofocus lock (AF lock)

Press down-arrow in Underwater mode
But only in underwater mode!

In SCN > Underwater-wide or -macro modes, press the down button for focus lock (it even labels the focus confirmation 'box')
A half-press on the shutter then gives exposure lock.
You can overide the white balance and some other settings from the scene mode defaults.
You appear to be stuck with Vivid.
But all these settings can be overriden or ignored if shooting RAW.
If nothing else, it shows what capability is hidden in the firmware.

SCN > Underwater Macro mode

If you set the XZ-1 to SCN > Underwater Macro mode, it will always start up with the lens extended to full 112mm tele, with the aperture fixed at f/4, and the shutter at the fastest-possible setting.
ISO remains at whatever you set; I use Auto ISO, since on the XZ-1 it won't ever go up over 200. All flash power options are available.
This might be helpful to anyone doing snapshot press photography... "Quick! Here comes Charlize Theron!"
An afterthought -- might be interesting for street photographers to see if shooting with the lens at 112mm is better than at 28mm... or better than mid-range 50mm 'normal vision' setting. That mild 112mm tele might just be better, what do you think?

Slight error! With it set to SCN > Underwater Macro, with the lens opening at startup to 112mm and the aperture locked at f/4, and the camera speed set by the XZ-1... using Auto-ISO, the ISO will go over 200 but it has to be REALLY DARK to get the camera to do that. In near-total darkness, it goes to ISO 400. In absolutely total darkness, it stops at ISO 800.

In practice, in this mode, Auto-ISO works really well in combination with the XZ-1's choice of shutter speed to get you a good picture... at low ISO, almost always below ISO 200.

XZ-1 … a 448mm lens?

Discovered today that my Olympus XZ-1, with its 28mm - 112mm lens, actually has a 28mm - 448mm lens!
Well, sort of. As you know, the glass lens, the 'optical lens', enlarges an image 4 times, when it zooms from 28mm to 112mm. But then, the camera's computer can enlarge it 4 more times, from 112mm to 448mm... what's called 'digital zoom.'
Now, your little camera probably can do this too. But nobody likes digital zoom, because the image quality isn't as good as optical zoom. Pro photographers and advanced amateurs actually SNEER at digital zoom. How bad is it? Well, my Olympus manual flatly states "Avoid using digital zoom to take pictures (p.75)" That's bad!
But is it really? You tell me. Here are three XZ-1 pictures, taken from the same camera position, handheld, at 28mm optical wide angle, 112mm optical telephoto, and 448mm digital telephoto --
jon404 > digi-tele-test (Original)
Dec 31, 1969 16:00:00

My take? The digital one isn't that bad... worth trying another tomorrow with the camera on self-timer and a beanbag. We'll see. But as of tonight, looks like my little XZ-1 just went super-zoom!

VF-1 Optical Viewfinder

The Olympus Optical Viewfinder VF-1, which was an accessory for the Pen cameras, works just fine on my XZ-1. It is much simpler (and a LOT less expensive) than the newer VF-2 electronic viewfinder. It slides into the hotshoe. On a bright day, when the LCD screen is hard to see, it's a Godsend. The field-of-view is close enough to the XZ-1's 28mm wide-angle startup lens setting... great if you're snapping pictures of fast-moving people or objects.

There's something else. Like many of you, I treasure the XZ-1's form factor... it fits in a shirt pocket... always there, always ready. My shirt has two pockets, and I keep the VF-1 viewfinder a polarizer, and a spare battery in the other. And that's all I need, DSLR folks! That's it! No lens adapter, no other filters, no teleconverter adapter, no teleconverters.

Nothing else! Well, maybe a tripod in the car trunk. And , a small beanbag with lead shot to put the XZ-1 on when I don't have the tripod out. But thanks to digital post-processing, we just don't have to lug all that stuff around anymore... isn't it wonderful!

Underwater Mode

Noticed that the XZ-1's Underwater Mode does a great job white-balancing the nightime mixture of tungsten, sodium vapor, neon and fluorescent light. And! For all you purists complaining about a missing XZ-1 Focus Lock button, guess what! In Underwater Mode, just press the down arrow on the back ring to lock the exposure.

Besides the two Underwater Modes (wide-angle and macro), you can also set the white-balance to 'Underwater'. I'm using Cloudy for all my daylight and twilight images, and then Underwater, usually with aperture priority, later at night.

This camera is so amazingly shirt-pocket portable. Am becoming an expert finding places to brace it against for low-light shots... keep a tripod in the car but somehow never use it... can put the camera on anything stationary (car roof, mailbox) and use the self-timer to take a very sharp shot. Fun!

SCN > Underwater Macro

More XZ-1 -- there are two SCN > Underwater settings -- Underwater Wide and Underwater Macro. If you have it set to Underwater Macro, the camera will start up with the lens at full 112mm telephoto.

Now, you know that you can press the shutter button halfway-down to do a focus-AND-exposure lock on the spot target. This works for almost every situation.

But here's a little-known feature: locking focus WITHOUT locking exposure.

Both SCN > Underwater settings also let you lock focus... point the center of the screen

at the subject, and press the Down arrow. It will beep and say 'AF Lock' under the green rectangle. Now, you can move the camera around and point it at something else, and the exposure will change with the new subject while the focus lock stays at the distance to the first subject. Interesting!

In practice, on vacation, forget this one. Too tricky. Just keep it on Program and you'll come back with wonderful pictures!

Manual focus

Question -- is a way to have the XZ-1 pre-set at a given distance, like 100' away, and then just take pictures without having to focus again?

Try auto-focusing 15ft in front of the lens -- then switch over to manual focus, and the camera stays in focus while zooming the full range. Sort of a 'hyperfocal distance' setting.

I went around and around with this, hoping that there would be a way to set the XZ-1 at a usable hyperfocal distance, so that each time it powered up, it would be set to that.

Couldn't do it. Closest -- in M Manual mode, press the OK button and change the focus mode to MF. It shows a magnifier. Use the dial (up or down) to focus on whatever point you want. Now, it will hold that focus point until you use MF to change it... or go back to AF... or turn the XZ-1 off... which unfortunately cancels your MF setting. When the camera turns back on, you have to do it over again.

In practice, say photographing sports, you could use MF to set a sort-of-hyperfocal distance, then just leave the camera turned on as you take your shots.

I'm not sure if there is a real-world advantage to this. The XZ-1's auto-focus is fast and accurate. Exception -- sometimes picking up an airplane against the sky... if at an airshow, I'd do the MF to focus on a far-off hangar or treeline, and then blast away as the planes come by... and try to remember NOT to turn off the camera until the show is over.

Manual focus ...post from Dpreview
In M mode, pressing the Info button enlarges the center of the image for accurate focusing, which is performed with the rear control wheel or the Up/Down buttons.

XZ-1 battery

It seems the Olympus LI-50B battery (3.7V, 925mAh, 3.5Wh) is manufactured by Sony and identical to the Pentax D-LI92 and Ricoh DB-100 batteries. This means you could get an original charger also from Pentax or Ricoh to charge the original battery for your Olympus XZ-1.
Check the third party replacement batteries from Energizer:
http://www.energizerbatteries.com/productList.asp?device=DIGCAM

M and Auto-ISO

Sometimes I like setting my camera on M mode, with auto-ISO. That way, I keep my aperture fixed so I get the depth of field I want at the focal lengths I choose, plus a fast enough shutter speed. The ISO level automatically goes up or down depending on the lighting.

FAQs

xz-1 FAQs -- http://www.olympusamerica.com/cpg_section/cpg_support_faqs.asp?id=1530

xz-1 image stabilization comes on at 1/40 @ 28mm, and at 1/125 @ 112mm.

xz-1 auto gradation, like vivid>auto gradation, knocks out spot metering. If want auto grad, shoot RAW normal, then change in post-processing ('developing' the RAW file as a JPG).

XZ-1 1/1.63" (7.9 x 5.8 mm) 2.14 pixel pitch, 4.6 crop factor

Depth Of Field (DOF) xz-1 f/5.6 , full tele, 40' to infinity. At wide angle, you don't even have to think about it... 6' focus distance will put EVERYTHING in focus.

XZ-1 DOF circle of confusion = .00686

Camera sensor sizes-- 1/2.3 = 6.16mm x4.62mm ... 1/1.6 = 8x6 ... 4/3 = 18x13.5 ... APS-C = 24x16 ... 35mm = 36x24. Prints: 8 x 10 inch (203 x 254 mm) or 32x enlargement from XZ-1 compared to 10.6x from APS-C.

Sensor 'bokeh' blured background -- the XZ-1's 24mm -112mm equiv. lens delivers the same 'bokeh' that you get from a full-frame camera with a 24mm - 112mm lens at f/8.5 - f/11. Some, but not much. Best, for normal images -- at f/1.8 in full tele 112 equiv. -- to focus on something nearby with some separation from the background. SuperMacro is even better, where your subject is from 1/2" to 1' away, and the background will be quite blurry... but remember, you can't use flash in SuperMacro mode.

Panning

Here's my 'formula', for small-sensor camera owners:

1. Get away from wide-angle! Instead, use the most telephoto your camera has, like my XZ-1's 112mm equivalent tele zoom.

2. Try to position yourself so that the panning subject, like a moving car, fills as much of the zoomed frame -- the field-of-view -- as possible.

3. Think ahead. Pre-focus on a spot at about the same distance as the subject will be... before it gets there.

4. Shutter speed -- use S -- shutter-priority mode. Experiment to find the slowest-possible shutter speed that still gives you a sharp subject as you swing the camera to follow the subject... like 1/30.

Sharpest images

...post on Dpreview by keydog

Set your camera to take Raw + Jpeg.
Take some pics.
Open Olympus Viewer 2 (if you don't have it download for free from Oly. just enter any number for serial #).
Click on the RAW button at the top to go into Raw editing mode.
Set the noise reduction from Normal to Low on all the pics (I haven't found a way to batch do this yet, but haven't tried much either).
Hit Save
In the Save Dialog box, click the file naming rule and select optional string for the base and put in "RAW".
Then save the pictures. Compare them with the OOC Jpegs. You'll notice the detail is crisper.
If Oly by default set the noise reduction lower or at least allowed you to in the camera, there would be a ton less complaining about "smeared details".

xz-1 sharpness -- I wouldn't recommend NR off, as that leaves a bit of the natural noise in the picture, but rather set it to LOW (which should have been the default!) and it is much nicer.

Photoshop Unsharp Mask: 80%, Radius 0.7, Threshold 0

Sharp prints

For a sharp print viewed from 1' away -- 300 ppi x width & length... 8x10 = 2400 x 3000, 11 x 14 = 3300 x 4200. 'Gallery sharp'.

But the XZ-1 image size is 3748 x 2736, and, after cropping, you may not have enough image left at 300 dpi to go to, say, 11 x 14. But try a print anyway -- many XZ-1 owners

print at only 240 or 250 ppi, with great results. Because, for a normal print on a wall, very few viewers will be inspecting it at close range... and, for 18" or 2' away, 240 ppi looks just as razor-sharp as 300 ppi at 1' or less.

the ultimate extension of this 'perceived sharpness' is a billboard by the highway... where an image silkscreened at only 5 or 6 ppi looks perfectly sharp to a passerby 100' away.

Slow Auto-Focus

...from posts on Dpreview by Vernatropius and Paul T.

Turn Off the "Rec View" in the Camera menu. See page 50, XZ-1 user manual...

"The image being recorded is not displayed. This allows the user to prepare the for the next shot while following the subject in the monitor after shooting."

This is opposed to the default RecView On setting -- "The image being recorded is displayed. This allows the user to make a brief check of the image that was just taken."

User Manual

http://www.olympusamerica.com/files/oima_cckb/XZ-1_Instruction_Manual_EN.pdf

XZ-1 shutter count

...post on Dpreview by BluAlloy

Basically the process goes:
1.) Hold the Menu button while turning the camera On
2.) Hit Menu and enter the display brightness setup. (Located under the Wrench. It looks like a TV)
You should now see the brightness adjustment bar on the right.
3.) Hold the Info button while pressing Ok
You should now see a black Olympus Screen

3.) Hit (in order) Up, Down, Left, Right, Shutter, Up
4.) Hit Right to see your shutter count R is the shutter count. S is the flash count. There's different info on each of the directions although I don't know if they mean anything useful for the XZ-1.
Just turn the camera off when you're done.

Filters

I carry a circular Polarizer in my right shirt pocket, along with a spare battery and an older Pen VF-1 optical viewfinder. But lets go further. Following are quotes from an article by Joseph Wisniewski, about why we still need to use 'film days' glass filters in the snew digital age. Interesting!

The Polarizer

This is so obvious I shouldn't need to get into "why" you need it, but I'm me, and that means I'm going to talk about it anyway. Any time light moves from air to a transparent substance, some of the light doesn't penetrate into the transparent substance and is reflected away. Whether the light hits water on a lake, the natural oil on human skin, clear cellulose and wax on plant leaves and flowers, lacquer on a car or a guitar, or glass on a building, there are reflections. The reflections are "white light"; they "fill in" the color and reduce saturation. They reduce the detail visible under the clear substance. The blue of the sky is also polarized, and a polarizer can deepen the blue, and keep it from blowing out and rendering your sky a cloudless white or a drab gray.
You can fight this with post processing, but you won't win. When you boost saturation, you fix the things that were "robbed" of contrast, but you also oversaturate the things that weren't suffering from contrast robbing reflections. And you can't replace the lost detail.

The 80A "Color Balancing" Filter

Most cameras have sensors that are "daylight balanced". They have nice, balanced red, green, and blue channel responses in neutral colored scenes lit by daylight. They achieve their incandescent white balance by amplifying the blue channel over two full stops relative to the red channel. That adds a great deal of noise to the blue channel, so you see

some pretty ugly shadows. It also makes it very easy to blow the red channel, especially when shooting red dominated subjects (human skin, cosmetics, and fall colors near dusk and dawn when the light is warm).
Using an 80A will often let you get an interior architecture image in a single shot that would have taken multiple shots and HDR to do otherwise. It also makes it much easier to shoot incandescent or candlelit scenes without blowing the red channel.r

The "soft focus" filter

Using a Gaussian blur can only make a good-looking soft focus effect on things that are not overexposed. For my own soft focus work (and the majority that I see from other photographers) the "prettiest" soft focusing is the glow surrounding blown highlights: candle flames, sparkling dew on flowers, the catch-lights in a woman's eyes, the glint of jewelry. You can't get that right in PhotoShop.

A soft focus filter in front of the lens gives you a glow with size and density that are proportional to how "blown" the blown area really is. So the glow around candles, specular reflections, water drops, etc varies with the brightness and the size of the blown area. And the transition from blown to not-blown on skin is much more natural with a filter or lens than with a PS blur. You can get this same effect with the "soft focus" lenses offered by Nikon, Canon, and Sony, but that's an expensive route taken only by serious soft focus aficionados. The Tiffen soft focus or "center spot" (a personal favorite) or Zeiss Softar are much less expensive than a soft focus lens, and you can use them at a variety of focal lengths.

Infrared

The XZ-1's sensor can 'see' infrared light. Not very well, but it can, and so you can take real infrared pictures. Exposure time in daylight is long... like 5 seconds... so you'll want to put the camera on a beanbag, or on a tripod,

Exposure -- 5 secs at f/1.8 -- XZ-1 in Natural / Underwater color modes, or Monochrome... 720nm IR filter over lens. False IR... color image into Photoshop, dupe layer, Channel mixer, mono, 100 red, 200 green, -200 blue and constant +20 to start.
Filter: http://www.amazon.com/Opteka-720nm-Infrared-X-Ray-

Filter/dp/B000MCWWL6/ref=pd_cp_p_pw_1

XZ-1 to FF conversion

camera, wide-angle, 6mm to 28mm (35mm equiv) divided by 6mm (XZ-1) = 4.67 ... f/16 divided by 4.67 = f/3.5. 'Sunny 16 rule' becomes 'Sunny f/3.5' ... reciprocal of ISO 100 (used to be film speed ASA).

At ISO 100, f/5.6 "8421"
Beach/snow/sky ... 1/1600 to 2000 ... or 1/400 at 5.6 with ND3
Bright sun, real shadows ... 1/800
Weak sun, soft shadows ... 1/400
Cloudy bright, no shadows ... 1/200
Overcast, open shade ... 1/100 or lower.

DOF depth-of-field

...post on Dpreview by sderdiarian

At the long end of its zoom, the XZ-1 has an aperture with a diameter of 9.6mm at 112mm equivalent, which compares favorably to the 9.8mm maximum aperture at the 83mm equivalent of a typical APS-C 18-55 F3.5-5.6 kit lens. It means the XZ-1 should give at least as blurred a background and do so at something much closer to the traditional portrait focal length. Furthermore it means the XZ-1 should give greater control over depth-of-field than a Micro Four Thirds kit lens, since they tend to offer 7.5mm at 84mm equivalent.

HDR – High Dynamic Range Imaging

The XZ-1 does not have in-camera HDR. It does have automatic bracketing, where it takes three pictures at different EV levels, that you can later put on different layers in Photoshop or Paint Shop Pro to create the HDR effect.

High dynamic range. In some situations, you can increase your dynamic range by double-processing the same RAW file. First, process the original capture to bring out the shadows. Then go back to the original RAW file and process it a second time to control the highlight values. Blend the two files into one image, and you'll end up with a dramatically higher dynamic range. While in the field, it's better to expose for the highlights in one capture and the shadows in the next and process those together, but a great deal of contrast problems can be solved even if bracketing isn't done during capture.

HDR tips from Rick Sammon --
No matter what type of HDR images you are looking to create, here are some basic guidelines that can ensure the best possible results.
• Keep your aperture constant and instead bracket by adjusting shutter speed.
• Use a tripod whenever possible for best all-around results.
• If you must shoot handheld, position yourself so you can hold the camera as steady as possible.
• Use the onscreen histogram to make sure you have captured the entire tonal range of the scene.
• Resist the urge to open up the shadows too much. Without rich shadows, images simply look flat.

XZ-1 Auto Gradation

XZ-1 Gradation? Well -- in a way, it is HDR. Sort of. The differences are subtle ...see my pic below (interior, low light, Vivid color mode). But key thing to remember -- if you use Gradation on Auto, you cannot use the Spot meter setting. Using Normal (gradation Off), High Key, and Low Key... the Spot meter still works.
From the Olympus web site --

"Gradation allows the camera to process images in various fashions suited to subject scenarios. It applies tools that affect the brightness and contrast of the processed image. The value of gradation is that the photographer can select the look of the image in-camera when shooting or change the gradation of a RAW image after the fact using the RAW EDIT function. (Changes are saved as separate JPEG images.)
The Gradation options are found in the camera's Picture Mode submenu. There are four options:
AUTO – This option divides the image into detailed regions and adjusts the brightness separately for each region. This is effective for images with areas of large contrast in which the whites appear too bright or the blacks appear too dark. It is a form of Shadow Adjustment Technology. Photos with a greater range of light like landscapes and night scenes would benefit from this option.
NORMAL – No gradation algorithms are applied to the images.
HIGH KEY – Gradation is applied that best suits a bright subject, such as silhouettes on a foggy day. It processes images so they are bright with slightly higher contrast in the brightest areas.
LOW KEY – Gradation is applied that best suits a dark subject that NORMAL gradation would tend to process lighter. It can be used to make images that have a somewhat somber mood.
The best way to see the effects produced by gradation is to take the same shot with each of the options and in the camera's Playback Mode, display them on the LCD in the four-shot display option to compare the differences. Remember to change the option back to AUTO or NORMAL after you have finished with a HIGH KEY or LOW KEY subject. You can also use HIGH KEY and LOW KEY creatively for unique subjects or scenarios such as a high key or low key portrait to create a mood."

Separate focus and exposure lock

...post on Dpreview by lensblade

Try this for a simple and usable way to get separate focus and exposure lock on your Olympus XZ-1:

Go into the AF setting, select AF and press OK to confirm it. This is to make sure pressing OK next time will bring up the AF menu.

Now suppose you need to focus on a point to your left, take the exposure from a scene to your right, and then take a picture of the view straight in front of you.

First, focus on the point to your left and get the focus confirmation signal, then lift off the shutter button and press OK. The AF setting menu will appear. Select MF (just go left from AF), this will disable any further automatic focusing.

Now point the camera at the scene you want to take the exposure from, depress the shutter half way and hold it. This will lock in temporarily the exposure you want.

Finally compose the shot and press the shutter fully.

Press OK again to select AF (just go right from MF) and re-enable normal focusing.

Accessories

Getting the optional RM-UC1 remote cable is a good idea if you plan on using the Bulb mode on a regular basis.

Remote Cable Release (RM-UC1) 57
Lithium Ion Rechargeable Battery (LI-50B) 45
Lithium Ion Battery Charger (F-2AC) 30
External Microphone Adapter Set (SEMA-1) 90
Macro Arm Light (MAL-1) 60
Electronic Viewfinder VF-2 (Black) 250
Electronic Viewfinder VF-1 100

filters, 52mm conversion, http://www.lensmateonline.com/store/olympusXZ1.php
Lensmate XZ-1 Adapter 52mm $25

Richard Franiec's Custom XZ-1 Grip, 1, $32.95

flash speedlight yongnuo http://www.amazon.com/Yongnuo-Flash-Speedlite-Yn-460ii-Pentax/dp/B003IZ9XTI

Rosco colored gel pack

Miscellaneous notes

...from posts on Dpreview

When viewing your photos on the XZ-1 you can rotate the images by rotating the lens collar for setting the aperture.

If getting a reddish tone in your jpegs, use the following settings:
Muted color picture mode, sharpness +1, contrast +1, saturation +1, NR off (Gradiation normal).
To prevent the focus hunting while taking video in low light, set the focus point to only the center (or where you want to focus). If that still won't work, snap a picture (to set the focus) then switch to manual focus.

The XZ-1 doesn't have an external ISO button. However, if you're using aperture (A) or shutter speed (S) mode, simply turn the mode dial to 'P' (program), adjust the ISO using the front lens ring, and then turn the mode dial back. After practicing a couple times it's hardly slower than having a dedicated external ISO button.

I leave the "AF" setting in Macro (flower icon) all the time. This allows me to focus closer when necessary (10cm / 3.9 inches at wide setting and 30cm. / 11.8 inches at telephoto setting.) The main difference is that it may take longer to focus on subjects at normal distances. It has a longer set of focusing points to search through and close up

focusing requires fine adjustments.

To achieve AFL, try one of the followings
1. Set the camera in AF, half-press to lock focus, press OK and L and switch to MF. You focus is now locked. To switch back to AF, press OK and R.
2. Set the Scene mode to underwater and press Down for Focus Lock. The camera will even show you a square where the focus is locked. But you will likely want to edit your photo in RAW because you cannot use Natural Color mode.

Hold INFO down for a few seconds to get a temporary LCD brightness boost (only while shooting, doesn't work in menus). You can only return the LCD to normal brightness by either toggling into and out of Playback mode or turning the camera off.

ISO-less RAW

...from a post on Dpreview by rsbones

According to testing data of DxO, or as compiled at http://sensorgen.info, you can see that the sensor in the XZ-1 has a very flat read noise profile. In other words, it's basically an "ISO-less" camera, like the Nikon D7000. This means one can choose to shoot in raw and basically ignore the iso setting all together and keep it at, say 100 or 200 and forget about it. The only penalty might be that it is hard to use the lcd, but the benefit is that you don't run the risk of clipping highlights the way the camera does when you set a higher ISO number.

Then you use your raw converter to brighten the image a few steps so that it'll appear exactly as it would have had you shot it with a higher iso setting, but since you can use highlight protection in the software as you do this, you won't lose the highlights as you would have had you let the camera clip them in the raw file.

I guess the way to use the camera with this strategy, would be to choose your aperture for the DOF that you want. Choose the slowest shutter speed you can handle without blurring so that you get the brightest exposure you can. Let the iso setting go up while

composing/focusing if you want, but before shooting, dial it back down to 100 or 200 (without changing the aperture or shutter speed of course).
There are lots of threads about this new paradigm here on dpreview. Hopefully camera makers will start to give us firmware and camera designs that take advantage of the iso-less nature of the modern sensors. For example, the camera could meter and raise the iso while shooting so that the view in the lcd is equal to what the cameras jpg engine will be capturing, but the raw file itself will not have any iso change done to it and instead will just have the amount of 'steps' recorded as metadeta so if we want we can set our raw converter to go ahead and automatically recover that brightness on import (without clipping any highlights).

Why shoot RAW Monochrome?

If your DSLR or smaller digital camera works like my Olympus XZ-1, you can have the best of both worlds -- color and B/W -- by shooting RAW images with your camera set to Monochrome mode.

You can see the actual B/W image on the LCD screen as you compose it... making it very easy to work with contrast, tone, and structure. Pure form. Later, you can save that RAW file image as either a B/W or full-color JPG or TIFF, and edit it any way you please.

Unless I'm wrong, this is a tremendous technical breakthrough. One that most photographers don't yet comprehend -- at least not in recent photo magazine articles about B/W photography, where they are still advising people to take the image in color and convert it to B/W later. Backwards!

If you love black-and-white, but maybe held off because in the past you couldn't also get the color image, your time has come. Shoot all the B/W pictures you want, and the color will still be there if needed. But in the meantime, you'll enjoy the indescribable luxury of seeing that B/W image in all its glorious grays as you compose it -- and you'll never have to worry about 'visualizing the B/W image' ever again.

of course, you'll want to 'develop' the B/W image on the PC in whatever program you have that can work with the RAW data and output the B/W image. Of course. But what I'm trying to get across is how exciting it is to see that B/W image on the LCD screen as you compose it... and then later have the luxury of really post-processing it to either B/W or color -- in your Adobe Lightroom or my Olympus Viewer software.

And, when I say 'see that B/W image on the LCD screen', yes, I know it's just a camera simulation. But it sure is a great help! Because I know that later, when I open the RAW file in Olympus Viewer, that's where I'll be starting from. Neat!

Now, if there's a fun argument here, it might go something like this: should photographers shoot all their images using the monochrome LCD mode, and then convert to color later? Would this result in better pictures with more interesting contrast, structure and form?

RAW Monochrome is color, too

Experimented this morning -- hoping that if I shot a RAW image in the Monochrome picture mode, that, later, the Olympus Viewer XZ-1 software would let me pick a regular picture mode, like Natural or Vivid, which would restore the color... but only if I wanted to.

Well, guess what? It worked!!! Bear with me, I'm very excited about this. Because years ago, I loved working with black-and-white film. B/W reduces the image to form, to tone and shade. My favorite film was something called Kodak Panatomic (ASA/ISO 32)... which was so 'slow', so fine-grain, that it made the most beautiful sharp prints. The only problem was that it was hard to 'see', to visualize, in black-and-white... you had to imagine how it would come out.

But now it's a new century! And thanks to RAW images, I can run around today and SEE ON THE LCD SCREEN IN MONOCHROME! Try THAT on your old Speed Graphic groundglass! WITHOUT LOSING THE COLOR, if I want it back later!

This is a wonderful feature. We all have strong opinions about photography, and mine

goes something like this: if an image looks good in black-and-white... if it has form and structure... it will look good in color. Too simplistic? What do YOU think?

XZ-1 -- a Leica Monochrom for the rest of us?

After a year with my XZ-1, discovered the Monotone settings today. Decided to make Monotone my C Custom mode, to easily take B/W pictures. You sure get one smooth image when you turn your B/W image from a 12-bit RAW file into an 8-bit JPG! The Leica Monochrom doesn't take color pix, either. So we're in good company here... except that, unlike the Leica, you can use Olympus Viewer RAW Picture Mode to turn the image back into color.

Anyway -- setting Monotone as your Custom Mode -- to start, from your normal color Program mode (I leave mine in RAW), change the color setting from Vivid or Natural or Portrait to Monotone.

Then, from the Menu button, on the Camera Menu, go to Picture Mode > Monotone, and set Contrast to +2, Sharpness 0, B&W Filter=Orange, Picture tone=Neutral, and Gradation=Auto if you like ESP exposure averaging, or Gradation=Normal if you want to have the choice of Spot metering.

Then, go back to the Main menu, and go to the Setup Menu (the wrench icon). To Custom Mode Setup, click OK; then Set; click OK.

Lastly, go back to P Program mode, and change the color setting from Monotone back to Vivid or whatever you normally use.

The next time you use C Custom, the XZ-1 will be in Monotone... with your settings retained and ready to use.

Like the Leica Monochrom, the XZ-1 warms the hearts of photographers who loved black-and-white film. Notice the Orange filter setting above? Oh boy. Or Red to really darken blue skies, or Green to lighten faces. I just leave mine on Orange. And you can change the Contrast -- I leave mine on +2, with Sharpness at 0 since increasing contrast adds a sharpening effect anyway.

But there are no formulas here. We all have different tastes, and the joy of an XZ-1 or Leica Monochrom is that you have choices, wonderfully traditional choices. And the amazing ability to see that black-and-white image on the LCD screen!

Why RAW?

...condensed from an essay by Barry Thornton

Normally, the human eye will see an image of 300 pixels per inch (ppi) in its final reproduction size as smooth continuous tone. Having more pixels per inch isn't necessary because we won't be able to see any difference. But below 300 ppi, we increasingly begin to detect those separate 'tiles' -- pixels -- so that the quality of the image begins, literally, to break up.

In monochrome, each of those pixels needs another piece of information - what shade of gray each one is -- its brightness value. This can shade between absolute black and absolute white. Monochrome needs only a brightness value... color needs the hue/saturation of each co-ordinate as well.

An 8-bit number lets us describe 256 brightness values (normally shown as 0 - 255). Because of JNDs, 256 is a critical number. What's a JND, and why is it important? A JND is a 'just noticeable difference'. If we have a 256-step brightness value scale from black to white with evenly spaced adjoining steps of gray running from the darkest just off-black gray to the lightest just off-white gray in sequence, the average human being can just perceive -- barely -- the difference between any two adjacent shades.

But if we couuld put an extra step in between any two of the steps, the human eye would be unable to detect the difference in brightness between that injected step, and the steps on either side.

If each pixel is assigned a brightness value using 8-bit numbers, the human eye will perceive the overall image to be a continuous tone image, just like a conventional monochrome photograph. If we put any more brightness values in by using, say, 12, 14 or 16-bit numbers, we human beings just wouldn't be able to see a difference. What's more,

the size of the file goes up dramatically, using far more storage space and working memory; and making image processing software work much harder, and therefore take longer, for any image change we make when using it.

Indeed, when we get to 16-bit numbers, each pixel can be described as any one of 65,536 brightness values, and that seems like total overkill, doesn't it? So why is 16-bit (or anything above 8-bit) an absolute necessity for a fine monochrome image?

If we didn't alter brightness values in Photoshop (or other software) it wouldn't matter, as long as we had a perfectly-exposed 8-bit image in the first place. But we DO alter brightness values by stretching them hither and thither in Photoshop. Increasing or decreasing brightness. And contrast. That is precisely why we use Photoshop!

If we manipulate an 8-bit file in Photoshop, we often squash some parts of that 256-step scale together (so that gray brightness values that were different are now the same), and we stretch others apart. Now, between each of the just noticeable difference steps, spaces open up. These get filled by the same gray as one of the adjoining pixels. Our eye can tell it should be a different gray though.The smooth transition from one gray to another has just become an abrupt step. A visible step.

When it becomes obvious enough to show, this effect is known as 'posterisation'. It is unpleasant to see, and it is very easy to provoke in monochrome. In an 8-bit image, with only minor manipulation, it is almost inevitable. There are real limitations to how much you can alter the brightness levels of an 8-bit JPG.

But, if you start with a 16-bit RAW file, and adjust it in RAW software like Olympus Viewer BEFORE saving it as an 8-bit JPG... the outcome will be much, much better.

Why adjust the 16-bit RAW file? Well, here you are working with 65,536 brightness values, not 256. If you now save this 16 bit RAW file to 8 bit JPG, the reduction from thousands of brightness values (even if some of the 65,536 were missing) fills up the 256 JPG-brightness-levels nicely. No matter how drastically you altered the brightness and contrast of the RAW file! After 8-bit output, you get a continuous range of grays -- no 'white spikes of doom' on the histogram. So the lesson for fine monochrome digital

images is: shoot that original in RAW mode -- to give yourself much greater latitude later to change the image, without losing image quality.

Flowers

Flowers, while beautiful, can be a pain to photograph. They dance, they wiggle in the slightest breeze, which always comes along just when you push the shutter button.

But! The sneakiest-wiggling flower can't escape 1/1000 shutter speed! No way! So you could use S mode, and set it at 1/1000 (or faster). In low light, you might have to go down to 1/500. In either case, the XZ-1's small lens should give you enough depth-of-field to easily keep the whole flower in sharp focus.

You can also, in S mode, pop up the flash and add a LITTLE light... like 1/16 or 1/64 power. No formula; you have to just try it, and it might not work, but when it does, that extra bit of fill light can be very special.

Resources

Three photo books that really helped me:

Understanding Exposure, Bryan Peterson

Understanding Flash Photography, Bryan Peterson

Black & White Photography in a Digital Age, Tony Worobiec

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